

Date: Wed, 9 Feb 94 04:30:16 PST  
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>  
Errors-To: Ham-Ant-Errors@UCSD.Edu  
Reply-To: Ham-Ant@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Ant Digest V94 #27  
To: Ham-Ant

Ham-Ant Digest                      Wed, 9 Feb 94                      Volume 94 : Issue    27

Today's Topics:

                                    75 ohm twinlead  
9913 for scanner use (was Re: RG-58 and Discone ant. problem at VHF (2 msgs)  
      ??using HF moible ant. for home base station?  
                                    ? HF Quad kits ?  
                                    Are MFJ Antennas Any Good?  
                                    Coax, Baluns & Dipoles  
                                    Effective Raditated Power? (2 msgs)  
                                    ELNEC & Modelling Wire Antennae  
                                    Job postings.  
                                    TEMPEST - Electronic Eavesdropping  
                                    Wind Load ???

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>  
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.  
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Date: 7 Feb 94 06:58:00 GMT  
From: library.ucla.edu!agate!howland.reston.ans.net!xlink.net!fauern!rz.unibw-  
muenchen.de!claude@network.ucsd.edu  
Subject: 75 ohm twinlead  
To: ham-ant@ucsd.edu

rkarlqu@scd.hp.com (Richard Karlquist) writes:

>An article on the G5RV antenna mentions 75 ohm "transmitting"  
>type twinlead for the 34 foot matching section. Can someone  
>tell me where to buy this stuff?

Some years ago, there was such a product in the Amphenol catalog.

>What gauge wire is it  
>and what type of plastic (polyethelene?)? What is the  
>loss per 100 feet at HF?

If you cannot get the information, please ask me again. I will  
try to find my old catalog.

--

Claude F. (claude@bauv106.bauv.unibw-muenchen.de)

This message may contain opinions which are not shared by my employer.  
The facts can speak for themselves.

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Date: Mon, 7 Feb 1994 04:35:27 GMT  
From: library.ucla.edu!agate!spool.mu.edu!darwin.sura.net!fconvx.ncifcrf.gov!  
mack@network.ucsd.edu  
Subject: 9913 for scanner use (was Re: RG-58 and Discone ant. problem at VHF  
To: ham-ant@ucsd.edu

In article <2iu83tINNctr@abyss.West.Sun.COM> myers@cypress.West.Sun.COM writes:

>In article 1lc@ornews.intel.com, bmiller@landesk.intel.com (Brett Miller -  
Support Engineer) writes:

>>In article <2iopihINNa5o@abyss.West.Sun.COM> myers@pongo.West.Sun.COM (Dana  
Myers ) writes:

>>>In article <Pine.3.89.9401291735.A26656-0100000@comp> Peter Laws  
<plaws@comp.uark.edu> writes:

>>>> A guy I know recently installed a Discone Antenna (R-S brand) and 50 ft of

>>>If you want low-loss coaxial cable in a 50 ohm system, use Belden 9913.

.

>>

>>I always get a kick when someone suggests spending \$100+ for coax for use  
>>with a no-gain \$50 discone and a RS scanner. Chances are, moving the  
>>scanner and attached wip antenna to the other side of the room will have  
>>similar results.

>

Agree. Rather than cluttering up the group with this one word reply, I tried  
to e-mail you, but the mail bounced (just incase you haven't got your return  
address right - I couldn't ping or finger you either)

Joe Mack NA3T  
mack@ncifcrf.gov

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Date: 4 Feb 1994 19:36:29 GMT

From: metro!dmssyd.syd.dms.CSIRO.AU!dmsperth.per.dms.CSIRO.AU!uniwa!  
harbinger.cc.monash.edu.au!yeshua.marcam.com!news.kei.com!sol.ctr.columbia.edu!  
spool.mu.edu!olivea!korie!@munniari.oz.au  
Subject: 9913 for scanner use (was Re: RG-58 and Discone ant. problem at VHF  
To: ham-ant@ucsd.edu

In article llc@ornews.intel.com, bmiller@landesk.intel.com (Brett Miller - Support Engineer) writes:

>In article <2iopihINNa5o@abyss.West.Sun.COM> myers@pongo.West.Sun.COM (Dana Myers ) writes:

>>In article <Pine.3.89.9401291735.A26656-0100000@comp> Peter Laws  
<plaws@comp.uark.edu> writes:

>>>> A guy I know recently installed a Discone Antenna (R-S brand) and 50 ft of  
>>>> RG 58 for his scanner. Problem: The rubber duck on the handheld unit, 20  
>>>

>>>There's your answer right there: RG58 and UHF don't mix very well. I  
>>>don't have the RS \$3 Catalog near me, but I think you'll be surprised at  
>>>the dB loss at UHF. And I don't recall the discone design having much,  
>>>if any, gain.

>>>

>>>On my indoor discone, I use the RG8/M from RS which has less loss at the  
>>>higher frequencies. You'll find a lot of folks who'll recommend RG6 for  
>>>scanner use, too. (I don't use it 'cause it's ~70 ohm and I like to use  
>>>my discone for my 2m HT).

>>

>>If you want low-loss coaxial cable in a 50 ohm system, use Belden 9913.  
>>This is a partial-air dielectric coax, with about the same form factor  
>>as RG-8.

>

>I always get a kick when someone suggests spending \$100+ for coax for use  
>with a no-gain \$50 discone and a RS scanner. Chances are, moving the  
>scanner and attached whip antenna to the other side of the room will have  
>similar results.

Well, sure. But he didn't ask where to put his antenna; by the time I  
commented on the question, it was about low-loss coax at VHF/UHF. Pardon  
me if I was wrong.

Anyway, where do you spend \$100+ for 50 feet of 9913? I bought a 100 foot  
spool of brand new 9913 for \$20 once. \$100 would buy 50 feet of Andrews  
Helix. If you pay more than \$40 for 50 feet of 9913, you're paying too  
much.

>I'm not knocking 9913 or you Dana, but sometimes the pat Ham radio answers  
>don't apply to low budget scanning. Also 9913 tends to be a little stiff  
>for most people that want to swap coax/radios.

Well, golly, Brent, I'm really sorry. The question appeared to be "what is a low loss coax for UHF?" The question did not appear to be "What can I do without spending money to make my scanner better?".

---

\* Dana H. Myers KK6JQ, DoD 466 | Views expressed here are \*  
\* (310) 348-6043 | mine and do not necessarily \*  
\* Dana.Myers@West.Sun.Com | reflect those of my employer \*  
\* This Extra supports the abolition of the 13 and 20 WPM tests \*

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Date: 7 Feb 94 10:44:41 MDT  
From: ihnp4.ucsd.edu!sdd.hp.com!swrinde!elroy.jpl.nasa.gov!usc!yeshua.marcam.com!  
zip.eecs.umich.edu!destroyer!ncar!csn!hellgate.utah.edu!cc.usu.edu!  
sltmw@network.ucsd.edu  
Subject: ??using HF mobile ant. for home base station?  
To: ham-ant@ucsd.edu

In article <CKtJMs.LK5@ucdavis.edu>, szhall@chip.ucdavis.edu () writes:  
> I am getting a HF mobile(HUSTLER 10-40 Meters) next for my car and I  
> would like some feeling about using it for a home base ant. as well. I  
> am using a dipole right now..Would it be hard to ground and whats its Db  
> ? please fill me in any information you can give me..tns..Jeff N6MYF  
>

I've used a Spider Multi-Band antenna for portable use several times...It makes a great Field Day station. Get yourself a large square frying pan, and about four 4ft ferring strips. Drill a few holes in the frying pan to mount the antenna, and the ferring strips for support. Finally, cut as many ground radials (You'll need 'em) as you can, and you are in business.....  
(The whole setup cost me about 3 dollars, get the frying pan at a Goodwill store)....  
Good Luck!

--

-----  
Daniel D Holmes " " - Marcel Marceau  
Internet: SLTMW@CC.USU.EDU  
AmprNet: N7NKR @ N7NKR.HOME.AMPR.ORG 44.40.1.43 [located in Salt Lake City]  
N7NKR @ N7NKR.AMPR.ORG 44.40.12.10 [located in Logan]

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Date: Mon, 7 Feb 1994 21:47:04 GMT  
From: ucsnews!sol.ctr.columbia.edu!howland.reston.ans.net!vixen.cso.uiuc.edu!  
uchinews!kimbark!khopper@network.ucsd.edu  
Subject: ? HF Quad kits ?  
To: ham-ant@ucsd.edu

Does anyone know of a HF Quad company ? How  
about kits or parts for a 15M quad ? 2-3 el.

Thanks,

Ken Hopper, N9VV  
HF biggot - PacTOR,RTTY,SSTV,CW  
"CW Spoken here"  
khopper@midway.uchicago.edu

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Date: Sat, 5 Feb 1994 03:18:17 GMT  
From: hearst.acc.Virginia.EDU!maxwell!jmm5h@uunet.uu.net  
Subject: Are MFJ Antennas Any Good?  
To: ham-ant@ucsd.edu

butler@vax.sonoma.edu writes:

> I'm considering ordering a couple antennas from MFJ - specifically  
> the 5/8 2m base (1750) and the 5/8 2m moblie (1728). I'd like to  
> hear about any experiences, comments, or suggestions that might help  
> make my decision.

>  
> Thanks,  
> -Bob Butler, KE6EH0  
> (butler@sonoma.edu)  
>

I just bought the MFJ scanner antenna (cellular  
lookalike) for my bc350. It's a mag mount w/ so-239  
connector. It works better than any mag mount I've had. I  
plan on ordering another one to use the whip in a chassis mount  
3/8x24 antenna I have on the roof of my truck for it's  
scanner. I'd say thumbs up.

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Date: Tue, 8 Feb 1994 22:48:46 GMT  
From: agate!howland.reston.ans.net!spool.mu.edu!olivea!apple.com!  
gallant.apple.com!dfrancis.apple.com!user@network.ucsd.edu  
Subject: Coax, Baluns & Dipoles  
To: ham-ant@ucsd.edu

I'm a vetran user of J poles and base loaded monopoles fed with coax  
on VHF, and am considering building a vertical dipole for 2 meters.  
I've briefed the antenna and feed line chapters in the ARRL handbook,  
but am undecided about feeding a dipole with coax and a balun vs.  
designing an antenna with a built in matching section (J pole)

I'd like to build a simple vertical with two pieces of 3/4" copper or aluminum pipe - "center" fed with coax. Do I need a balun or would it be just as good to do a an "unfolded" J pole? 1/4 wave matching section, co-linear with a 3/4 wave section? (Is this not a vertical Zepp?)

Other suggestons welcome.

-df

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Date: 4 Feb 1994 23:54:42 GMT  
From: olivea!korie!male.EBay.Sun.COM!uranium!raymonda@uunet.uu.net  
Subject: Effective Raditated Power?  
To: ham-ant@ucsd.edu

In article 2ipbbbINNq2u@news.d.umn.edu, tstein@monolith.d.umn.edu (Tom Stein) writes:

.>I have a quick question:  
.>  
.>Say I have 40 watts coming out of the back of my radio. My feedline is  
.>1.4dB per 100 ft. I have 100 feet of feedline... Then my antenna, a 11 el.  
.>beam has 11dB gain on it. Can someone tell me what the effective radiated  
.>power of my system would be? And a formula would help....  
.>  
.>Tom Stein (N0UJK)  
.>

$P_2 = 40 \text{ watts}$        $P_1 = \text{exp}$

Gain in dB = +11dB -1.4dB = +9.6dB

$\text{dB}(\text{power}) = 10 * \log(P_1/P_2)$

so:  $9.6 = 10 * \log(P_1/P_2)$

$.96 = \log(P_1/P_2)$

$(P_1/P_2) = 10^{.96}$

$(P_1/P_2) = 9.12$

$(P_1/40) = 9.12$

$P_1 = 364.8 \text{ watts effective radiated power}$

Ray WB6TPU

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This response does not represent the official position of, or statement  
by, Sun Microsystems Incorporated. The above data is provided for informational  
purposes only. It is supplied without warranty of any kind.  
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2550 Garcia Ave. MS MIL04-16  
Mountain View, CA 94043-1100  
  
(408) 276-5224  
(408) 956-0492 fax  
raymond.anderson@Sun.Com

-----  
Date: Thu, 3 Feb 1994 19:15:23 GMT  
From: mvb.saic.com!unogate!news.service.uci.edu!usc!cs.utexas.edu!  
howland.reston.ans.net!europa.eng.gtefsd.com!emory!wa4mei.ping.com!ke4zv!  
gary@network.ucsd.edu  
Subject: Effective Raditated Power?  
To: ham-ant@ucsd.edu

In article <2ipbbbINNq2u@news.d.umn.edu> tstein@monolith.d.umn.edu (Tom Stein)  
writes:

>I have a quick question:

>

>Say I have 40 watts coming out of the back of my radio. My feedline is  
>1.4dB per 100 ft. I have 100 feet of feedline... Then my antenna, a 11 el.  
>beam has 11dB gain on it. Can someone tell me what the effective radiated  
>power of my system would be? And a formula would help....

Ok, you have +11db of antenna gain (in the main lobe) and -1.4db of loss  
in the coax. So the system gain is 11+(-1.4)=9.6db, db add, you just have  
to pay attention to the sign. Now the db power ratio formula is

$db = 10 * \log(P1/P2)$

We can use a little algebra and come up with

$ERP = P_t \times 10^{(db/10)}$

In your case,  $40 \times 10^{(.96)} = 364.8$  watts ERP.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

-----  
Date: 8 Feb 94 14:48:35 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: ELNEC & Modelling Wire Antennae  
To: ham-ant@ucsd.edu

Howdy! I recently acquired ELNEC and would like to share experiences with others on modelling beverages, bobtail curtains and other wire type arrays.

73 de Walt - K2WK

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Date: Thu, 3 Feb 1994 11:36:16 -0500  
From: rsg1.er.usgs.gov!darwin.sura.net!howland.reston.ans.net!  
europa.eng.gtefsd.com!fs7.ece.cmu.edu!news.sei.cmu.edu!bb3.andrew.cmu.edu!  
andrew.cmu.edu!cb1p+@seismo.css.gov  
Subject: Job postings.  
To: ham-ant@ucsd.edu

RedZone Robotics, Inc. A six year old robotics startup (and a spinoff from CMU Field Robotics) located in Pittsburgh PA is looking for more people in our continued expansion.

We are looking for Mechanical engineers with experience in automated/controlled machine design. Electrical engineers with Control systems experience. Software engineers with Real time control experience.

All candidates should have at least a BS and some level of experience in the field of robotics. (Or else a WHOLE LOT of exp. ;-)

Generalists (multidisciplinary folks) are preferred.

For more information e-mail me or send your resume to:

Christopher Beasley



Control Systems Engineer E2  
RedZone Robotics, Inc.  
Pittsburgh, PA 15222

If you make it past the first cut you will definitely hear from us by letter. All e-mail will be answered.

E-mail is the preferred method for initial contacts.

-----  
Date: 6 Feb 1994 20:56:31 -0800  
From: ucsnews!newshub.sdsu.edu!usc!howland.reston.ans.net!spool.mu.edu!  
news.clark.edu!clark.edu!not-for-mail@network.ucsd.edu  
Subject: TEMPEST - Electronic Eavesdropping  
To: ham-ant@ucsd.edu

Re: the government prohibits use of tempest technology.....

Boeing surplus in Seattle was selling tempest housings for computers a year or two ago. They were pretty cheap too.

Rick

-----  
Date: 7 Feb 1994 16:29:45 GMT  
From: library.ucla.edu!csulb.edu!nic-nac.CSU.net!usc!howland.reston.ans.net!  
vixen.cso.uiuc.edu!newsrelay.iastate.edu!news.iastate.edu!kenman@network.ucsd.edu  
Subject: Wind Load ???  
To: ham-ant@ucsd.edu

The specs on my antenna state the following.

Wind load: 2.25 sq. ft.

What does this mean? (I know it relates to wind and antennas falling to the ground, but what is it "exactly").

Tnx

Ken

--  
Ken Anderson    N0ZEM Kenman@iastate.edu    PH: 515.294.8996

126 Soil Tilth Bldg., Iowa State University, Ames, Iowa 50011

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End of Ham-Ant Digest V94 #27

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